Remarks

In view of the above amendments and the following remarks, reconsideration of the outstanding office action is respectfully requested.

Claims 16-27 have been canceled. Claims 1-15 remain pending, with claims 8, 9, and 11-15 remaining withdrawn. Claim 1 has been amended.

Accompanying this Amendment is a Notice of Appeal for the rejection of claims 1-7 and 10, and a Petition to Revive an Unintentionally Abandoned Application.

The rejection of claims 1-4, 6, and 10 under 35 U.S.C. § 103(a) for obviousness over U.S. Patent No. 6,488,141 to Pritchard et al. ("Pritchard") in view of either U.S. Patent No. 4,119,211 to Boyer et al. ("Boyer"), U.S. Patent No. 6,227,349 to Finkowski et al. ("Finkowski"), or U.S. Patent No. 4,026,406 to Gazzarini ("Gazzarini") is respectfully traversed.

Pritchard teaches an aligning device 400 that includes a trough 403 which contains a plurality of side-by-side channels 456 separated by an apex 457 formed therebetween. The channels also include a portion (456A) with nearly vertical sidewalls. Tapered ribs 470 are provided on apexes 457. All of the channels terminate in a co-planar arrangement (see Figures 9 and 10).

Boyer teaches a device (illustrated in Figures 2, 3, and 6) intended for use in aligning miniceramics 25. The device includes a plurality of substantially parallel guide tracks 30 formed in plate 32. The ends of each of the guide tracks is provided with a stop 34, which prevents movement of the miniceramics beyond the end of the guide track, but allows them to be picked up, in a predetermined alignment, by transport mechanism 54.

Gazzarini teaches a machine for slicing bread that includes a tray for delivering the slices onto a conveyor. The tray contains a surface 15 that is physically separated into a plurality of channels by guides 14, with each channel terminating in a separate plane. A transverse pin 13 is present adjacent the terminus of each of the channels (i.e., spanning between adjacent guides 14) and a plurality of chutes 16 are connected to the ends of the tray surface 15, allowing for delivery of the bread slices onto a conveyor belt 17. Thus, product leaving the surface of tray 15 is not free from any encumbrance, given that the bread slices will contact pin 13 and/or chute 16 as it leaves tray 15.

The U.S. Patent and Trademark Office ("PTO") has asserted that it would have been obvious to step the discharge ends of channels 456A in unit 400 of Pritchard as

taught by Boyer (channels 30), Finkowski (conveyors 14, 16), or Gazzarini (15). Applicant respectfully disagrees.

Claim 1 presently recites that the feeder chute that *consist essentially of* the bottom member that contains the plurality of channels formed therein, wherein one of the plurality of channels has a terminus defining a first discharge plane and a second channel adjacent to the one channel has a terminus defining a second discharge plane, the second discharge plane being spaced apart from the first discharge plane. Moreover, the terminus of each channel is free from any encumbrance.

As noted in the specification, the feeder chute of the present invention is to be used with a system for capturing the image of product departing from the feeder chute. Thus, by having termini free from any encumbrance the product may leave the feeder chute without interference from such encumbrance. This will allow product, such as stone aggregate passing over the feeder chute, to fall unencumbered from the termini of the tray channels, i.e., into a zone where an image is later intended to be captured for analysis.

Although Pritchard teaches the use of parallel channels, Pritchard fails to teach having the termini of those rows terminate in distinct planes that are unencumbered. While Boyer and Gazzarini generally teach the staggering of the termini of parallel channels, neither of these references teaches the use of feeder chute where the termini of the channels are unencumbered as is presently claimed. Thus, even if the teachings of Pritchard are combined with the teachings of Boyer or Gazzarini, the combinations thereof would have failed to have taught the person of ordinary skill in the art to form such a feeder chute as presently claimed.

Applicants submit that the teachings of Finkowski and Pritchard cannot be properly combined, because Finkowski is not analogous art. The Federal Circuit has set forth a two-pronged test to determine whether a reference constitutes analogous art. *In re Clay,* 966 F.2d 656, 658-59, 23 USPQ2d 1058, 1060-61 (Fed. Cir. 1992). The test considers:

> (1) Whether the art is from the same field of endeavor, regardless of the problem addressed, and (2) if the reference is not within the field of the inventor's endeavor, whether the reference still is reasonably pertinent to the particular problem with which the inventor is involved.

Id. In this case, both Pritchard and the present invention relate to tray type sorting devices for delivering a flow of product. Finkowski, on the other hand, relates an apparatus for handling pieces of dough. The apparatus includes a pair of parallel conveyors (14,16) that are designed to convey neatly placed dough to their spaced-apart discharge ends (14A, 16A) so

as to deliver dough onto a third, transverse conveyor 20 in spaced-apart relation. Finkowski clearly does not relate to the same field of endeavor (of handling loose aggregate product). Further, Finkowski is not reasonably pertinent to the particular problem solved by the present invention (delivering loose, randomly-mixed aggregate materials in spaced apart parallel flows). There is no indication in Finkowski that the disclosed conveyors can be used to deliver loose aggregate materials as in the present invention. For the foregoing reasons, Pritchard and Finkowski are not properly combinable.

Applicant further submits that the limitations of claim 6 are identified in the specification as allowing for adaptation of the device so as to allow for "handling a broader range of particulate matter sizes." Thus, the claimed limitation, though not necessarily critical (and therefore not specified in independent claim 1) affords a desirable feature of one embodiment of the invention. Particulate matter, such as crushed stone aggregate, differs and size and is typically sorted in accordance therewith. The invention of claim 6 allows for the flexibility of the device in handling different sizes of such particulate matter. This feature cannot be summarily dismissed as non-critical and, therefore, a non-inventive feature. Applicant notes that the PTO has failed to demonstrate where the prior art teaches or suggests such a feature.

Applicant further submits that the limitations of claim 10 are identified in the specification as achieving "maximum two-dimensional spacing of particulate matter." This precludes particulate matter discharged from one channel from interfering with the subsequent image capture of particulate matter discharged from, e.g., an adjacent channel. As such, the claimed limitation, though not necessarily critical (and therefore not specified in independent claim 1), is a feature of one embodiment of the invention. This feature cannot be summarily dismissed as non-critical and, therefore, a non-inventive feature. Applicant notes that the PTO has failed to demonstrate where the prior art teaches or suggests such a feature.

For the foregoing reasons, the rejection of claims 1-4, 6, and 10 for obviousness is improper and should be withdrawn.

The rejection of claims 5 and 7 under 35 U.S.C. § 103(a) for obviousness over Pritchard in view of Boyer, or Finkowski , or Gazzarini as applied to claim 1, further in view of U.S. Patent No. 6,041,911 to Gebhart ("Gebhart") or U.S. Patent No. 2,456,031 to Spain ("Spain") is respectfully traversed.

The teachings and deficiencies of Pritchard, Boyer, and Gazzarini are set forth above. Moreover, Finkowski is not properly combinable with Pritchard for the reasons noted above.

Gebhart teaches a device for sorting blocks formed of concrete or concrete-like material. The sorting device includes collecting channels that are separated by run-on surfaces 18,19, fitted with stop pins 20. All of the channels terminate in a co-planar arrangement (see Figure 1).

Spain teaches a device used for aligning candy, the device including a frame 10 with a plurality of spaced parallel guide members 11. At the receiving end of the device, the guide members 11 each possesses a plurality of upstanding elements 19 mounted on the upper surfaces thereof. All of the channels formed by the guide members terminate in a co-planar arrangement (see Figures 1 and 2).

Applicant submits that the combination of Pritchard with either one of Boyer or Gazzarini further in view of Gebhart or Spain fails to teach of suggest each and every limitation of the claimed invention. In particular, neither Gebhart nor Spain overcomes the above-noted deficiencies of the combination of Pritchard with Boyer or Gazzarini. Boyer and Gazzarini specifically teach away from a device that is free from encumbrances at the channel termini. The device of Boyer contains stops 34 at the ends of each channel, whereas the device of Gazzarini includes both the transverse pin 13 and a plurality of chutes 16 connected to each channel of the tray surface 15. Importantly, the PTO has failed to assert where Gebhard or Spain overcomes the deficiencies of Pritchard in combination with Boyer or Gazzarini.

For the foregoing reasons, the rejection of claims 5 and 7 for obviousness is improper and should be withdrawn.

In view of all of the foregoing, applicant submits that this case is in condition for allowance and such allowance is earnestly solicited.

Respectfully submitted,

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